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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/614,898	07/12/2000	Clark Woody	J 2850	2434

28165            7590            09/23/2002  
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EXAMINER
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WEEKS, GLORIA R

ART UNIT	PAPER NUMBER
3721	

DATE MAILED: 09/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

LC

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/614,898	WOODY ET AL.
	Examiner	Art Unit
	Gloria R Weeks	3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 July 2002.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-35 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Amendment***

1. This action is in response to applicants' amendment received on July 11, 2002.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 8, 14-16, 23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Coleman et al. (USPN 5, 546,732).

In reference to claims 1, Coleman et al. discloses a method of severing and sealing a film formed of a thermoplastic material (column 3, lines 28-30) comprising the steps of: heating a cutting edge implement (121) to a temperature sufficient to melt but not to burn the thermoplastic material (column 5, lines 15-16); feeding a plurality of layers of (28, 30, 34; column 5, lines 13-15) of the film between the cutting edge implement (121) and an opposing surface (122); moving the cutting edge implement (121) and the opposing surface (122) relative to one another to pinch the plurality of layers of film therebetween (column 5, lines 21-25); and thereafter, suspending any relative lateral movement between the cutting edge implement (121), the film (28, 30, 34), and the opposing surface (121), while relatively biasing the cutting edge implement (121) and the opposing surface (122) together with the plurality of layers of film (28, 30, 34) pinched there between, until the cutting edge implement (121) cuts through the plurality of layers of film (28, 30, 34), contacts the opposing surface (122), and seals the plurality of layers of the film together (column 5, lines 25-28).

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Regarding claim 2 and its limitations as stated above, Coleman et al. discloses a method of severing and sealing a film formed of a thermoplastic material wherein the moving step comprises the step of advancing the cutting edge implement (121) in a direction substantially perpendicular relative to a contact area of the opposing surface (122; figures 15-16; column 5, lines 21-25).

Regarding claim 8, Coleman et al. discloses a method of severing and sealing a film comprising the steps of: clamping the film (28, 30, 34) between opposing surfaces (118a, 118b, 121, 122); column 5, lines 21-25); heating a cutting edge implement (121) to a temperature sufficient to melt but not to burn the thermoplastic material (column 5, lines 15-16; and moving the cutting edge implement (121) past one of the opposing surfaces (118a; figure15) toward the other surface (118b, 122) so that the cutting edge implement (122) presses against the film toward the other surface (122) for a period of time sufficient to sever the film and seal the resulting severed edge (column 5, lines 13-28).

In reference to claim 14 and its limitations as stated above, Coleman et al. discloses a method of severing and sealing a film wherein the clamping step comprises clamping the film between a rotating drum (118a, 118b) and an anvil (122) that travels around a closed path at approximately the peripheral speed of the rotating drum (column 7, lines 18-27).

With respect to claim 15, Coleman et al. discloses an apparatus for severing and sealing a film formed of a thermoplastic material (column 3, lines 28-30) comprising the steps of: a cutting edge implement (121) that is heatable to a temperature sufficient to melt but not to burn the thermoplastic material (column 5, lines 15-16); an anvil (122); means for feeding a plurality of layers of (28, 30, 34; column 5, lines 13-15) between the cutting edge (121) and the anvil (122);

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means for moving the cutting edge implement (121) and the anvil (122) relative to one another to pinch the plurality of layers of film (28, 30, 34) there between (column 5, lines 21-25); and means for suspending any relative lateral movement between the cutting edge implement (121), the film (28, 30, 34), and the anvil (121), while pressing the cutting edge implement (121) toward the anvil (122) with the film (28, 30, 34) pinched there between, until the cutting edge implement (121) melts through the plurality of layers of film (28, 30, 34), contacts the anvil (122), and seals the plurality of layers of film together (figures 15-16; column 5, lines 25-26).

In reference to claim 16 and its limitations as stated above, Coleman et al. discloses an apparatus for severing and sealing a film formed of a thermoplastic material further comprising: means (120) for laterally moving the cutting edge implement (121) along a closed path; and means for moving the anvil (122) along a path that is at least in part substantially parallel to a portion of the closed path traveled by the cutting edge implement (121; figures 15-16).

Regarding claim 17 and its limitations as stated above, Coleman et al. discloses an apparatus for severing and sealing a film formed of a thermoplastic material wherein the cutting edge implement (121), the film (28, 30, 34), and the anvil (122) all synchronously move in substantially the same lateral direction while the film is melted and sealed (column 7, lines 18-28).

With respect claim 23, Coleman et al. discloses a method for severing and sealing a film formed of a thermoplastic material (column 3, lines 28-30) comprising the steps of: pinching a plurality of layers of the film (28, 30, 34) between a substrate (122) and a cutting edge implement (121) that is heated to a temperature sufficient to melt but not to burn the thermoplastic material (column 5, lines 15-16); and pressing the cutting edge (121) implement

toward the substrate (122) with the plurality of layers of film pinched there between, until the cutting edge implement (121) melts through the plurality of layers film, contacts the substrate, and seals the plurality of layers of film together (figures 15-16; column 5, lines 25-26).

In reference to claim 24 and its limitations as stated above, Coleman et al. discloses a method for severing and sealing a film formed of a thermoplastic material further comprising the step of feeding the plurality of layers of film in a lateral direction (column 5, lines 4-8), and synchronously moving the substrate and the cutting edge implement in the lateral direction during the pinching and pressing steps (figures 15-16; column 5, lines 21-25).

Regarding claim 25 and its limitations as stated, Coleman et al. discloses a method for severing and sealing a film formed of a thermoplastic material further comprising prior to the pinching step, heating the cutting edge implement (121) to the sufficient temperature (column 5, lines 15-28).

4. Claims 27, 30-31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Wildmoser (USPN 4,115,182).

Regarding claim 27, Wildmoser discloses an apparatus for severing and sealing a film formed of a thermoplastic material comprising: a cutting edge implement (40) that is heatable to a temperature sufficient to melt but not to burn the thermoplastic material; an insulating insert (38) for supporting the cutting edge implement (40); a base member (34) for supporting the insulating insert; an anvil (52) for placement adjacent to the cutting edge implement (40) on a side of the cutting edge implement (40) opposite from the insulating insert (38) and the base member (); means for feeding a plurality of layers of the film (18a, 20a) between the cutting edge implement (40) and the anvil (52); means for moving the cutting edge implement (40) and the

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anvil (52) relative to one another to pinch the plurality of layers of film (18a, 20a) therebetween; means for suspending any relative lateral movement between the cutting edge implement (40), the film (18a, 20a), and the anvil (52), while pressing the cutting edge implement (40) toward the anvil (52) with the film (18a, 20a) pinched therebetween, until the cutting edge implement (40) melts through the plurality of layers of film (18a, 20a), contacts the anvil (52), and seals the plurality of layers of film (18a, 20a) together (column 4, lines 4-14, 38-41, 64-68; column 5, lines 1-35).

Regarding claim 30 and its limitations as stated above, Wildmoser discloses an apparatus for severing and sealing a film wherein the cutting edge implement (40) is a hot wire that is supported substantially its entire effective cutting length by the insulating insert (38; column 4, liens 7-11).

With respect to claim 31 and its limitations as stated above, Wildmoser discloses an apparatus for severing and sealing a film wherein the cutting edge implement (40) is heated to a temperature of less than approximately 800 °F (column 5, lines 19-23).

Regarding claim 33 and its limitations as stated above, Wildmoser discloses an apparatus for severing and sealing a film wherein the cutting edge implement (40) comprises a hot wire (column 4, liens 7-11).

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 7, 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (USPN 5, 546,732) as applied to claims 1, 16 and 23 above, and further in view of Motomura (USPN 6,260,336).

With respect claims 3, 7, 17, 24 and their limitations as stated above, Coleman et al. discloses a method of severing and sealing a film formed of a thermoplastic material wherein the suspending step comprises synchronously moving the cutting edge implement (121), the film (28, 30, 34), and the opposing surface (122), but does not disclose synchronously moving the cutting edge implement (121), the film (28, 30, 34), and the opposing surface (122) in substantially the same lateral direction. Motomura teaches a method of severing and sealing a film by pinching the film between a heated cutting edge implement (35, 36) and an opposing surface (31a, 32a) wherein the suspending step comprises synchronously moving the cutting edge implement (35, 36), the film (11), and the opposing surface (31a, 32a) in substantially the same lateral direction (figure 2, lines 5, lines 40-49). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Coleman et al. to include the step of synchronously moving the cutting edge implement, opposing surface and film in the same lateral direction, as taught by Motomura for the purpose of continuously feeding the film during the dwell time of the cutting edge implement and the opposing surface with the film.

7. Claims 4, 11, 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (USPN 5, 546,732) as applied to claims 1, 15 and 23 above, and further in view of Noel et al. (USPN 5, 718,101).

In reference to claims 4, 11, 18, 26 and their limitations as stated above, Coleman et al. discloses a method of severing and sealing a film formed of a thermoplastic material wherein the cutting edge implement (121) is a hot blade, not a hot wire, and further comprising the step of prior to the moving step, supporting the hot blade for substantially its entire effective cutting length (figure 16). Noel et al. teaches that it is well known in the art to substitute a blade for wire for the purpose of severing and sealing (column 6, lines 31-33). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cutting edge implement of Coleman et al. to include the a hot wire, as taught in the method of Noel et al.

8. Claims 5-6, 9-10, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (USPN 5, 546,732) as applied to claim 1, 8 and 15 above, and further in view of Gorlich et al. (USPN 6,305,149).

Regarding claims 5-6, 9-10, and 19-20 and its limitations as stated above, Coleman et al discloses a method of severing and sealing a film formed of a thermoplastic material wherein the heating step comprises heating the cutting edge implement, but Coleman et al. does not disclose the temperature range in which the cutting edge is heated. Gorlich et al. teaches heating a cutting edge to a temperature of less than 800°F but greater than 600°F (column 8, lines 55-67; column 9, lines 1-3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to heat the cutting edge of Coleman et al. to a temperature of less than 800°F but greater than 600°F, as taught in Gorlich et al. for the purpose of sealing and severing the film without burning the film.

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9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (USPN 5, 546,732) as applied to claim 8 above, and further in view of Dworak et al. (USPN 5,094,657).

Regarding claim 12 and its limitations and its limitations as stated above, Coleman et al. discloses a method of severing and sealing a film formed of a thermoplastic material including the step of pinching film between a cutting edge implement (121) and another surface (122; figure 15), but does not disclose the amount of time that this step occurs. Dworak et al. teaches the method of severing and sealing a film wherein the cutting edge pinches film between another surface for approximately one second (column 4, lines 42-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Coleman to include the step of pinching the film between the cutting edge implement and another surface for approximately one second, as taught by Dworak et al.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman et al. (USPN 5, 546,732) as applied to claim 8 above, and further in view of Gorlich et al. (USPN 5,689,937).

With respect to claim 13 and its limitations as stated above, Coleman et al. discloses a method of severing and sealing a film formed of a thermoplastic material wherein the passing step comprises advancing the cutting edge implement (121) through film, but not through an opening in another surface. Gorlich et al. teaches a method for severing and sealing a film wherein a cutting edge implement (304) advances through an opposing surface (figure 15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the opposing surface of Coleman et al. to include an opening, as taught by

Gorlich et al., for the purpose of implementing the step of allowing the cutting edge implement to pass through the opposing surface.

11. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wildmoser (USPN 4,115,182) as applied to claim 27, and further in view of Motomura (USPN 6,260,336).

With respect to claim 28 and its limitations as stated above, Wildmoser discloses an apparatus for severing and sealing a film further comprising: means for longitudinally moving the cutting edge implement (40) along a closed path, but does not disclose means for laterally moving the cutting edge implement (40). Motomura teaches an apparatus of severing and sealing a film by pinching the film between a heated cutting edge implement (35, 36) and an anvil (31a, 32a); including means for moving the cutting edge implement (35, 36) and the anvil (31a, 32a) in a lateral direction on a closed path, while keeping the cutting edge implement (35, 36) and the anvil (31a, 32a) substantially parallel (figure 2, lines 5, lines 40-49). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Wildmoser to include the lateral moving means of Motomura for the purpose of continuously feeding the film during the process of sealing the layers of film between the cutting edge implement and the anvil.

In reference to claim 29 and its limitations as stated above, Wildmoser discloses an apparatus for severing and sealing a film wherein the cutting edge implement (40) and the anvil (52) move synchronously in a longitudinal direction, towards each other, but does not disclose the cutting edge implement (40), the film (18a, 20a), and the anvil (52) all moving synchronously in the same lateral direction while the film is being melted and sealed. Motomura teaches an apparatus of severing and sealing a film by pinching the film (11) between a heated cutting edge

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implement (35, 36) and an anvil (31a, 32a); including means for moving the cutting edge implement (35, 36), the film (11), and the anvil (31a, 32a) in a lateral direction on a closed path, while keeping the cutting edge implement (35, 36) and the anvil (31a, 32a) substantially parallel (figure 2, lines 5, lines 40-49). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Wildmoser to include the lateral moving means of Motomura for the purpose of continuously feeding the film during the process of sealing the layers of film between the cutting edge implement and the anvil.

12. Claims 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wildmoser (USPN 4,115,182) as applied to claim 27, and further in view of Gorlich et al. (USPN 5,689,937).

In reference to claim 32 and its limitations as stated above, Wildmoser discloses an apparatus for severing and sealing a film wherein the cutting edge implement is heated to a temperature ranging from 350 °F and 550 °F in order to prevent the melting of the anvil (52; column 5, lines 19-22). Gorlich et al. teaches the use of ceramic for the purpose of providing insulation against the transfer of heat (column 9, lines 26-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rubber insulating insert and anvil of Wildmoser to include ceramic, as taught by Gorlich et al., for the purpose of reducing or preventing the transfer of heat from the cutting edge implement. With this modification made, the cutting edge implement of Wildmoser would have been capable of being heated to a greater temperature, such as a temperature ranging between about 600°F and 800 °F.

In reference to claim 35 and its limitations as stated above, Wildmoser discloses an apparatus for severing and sealing a film wherein the insulating insert (38) is made of rubber (column 4, lines 4-7). Gorlich et al. teaches the use of ceramic for the purpose of providing insulation against the transfer of heat (column 9, lines 26-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rubber insulating insert and anvil of Wildmoser to include ceramic, as taught by Gorlich et al., for the purpose of reducing or preventing the transfer of heat from the cutting edge implement.

13. Claims 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wildmoser (USPN 4,115,182).

With respect to claim 34 and its limitations as stated above, Wildmoser discloses an apparatus for severing and sealing a film while suspending any lateral movement of the film (18a, 20a) during the process of sealing and cutting the film (18a, 20a). Although the amount of time the lateral movement of the film is not disclosed, it would have been an obvious matter of design choice to suspend the lateral movement of the film for approximately one second, since applicant has not disclosed that this amount of time solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with if the film was suspended for an amount of time relatively greater or less than one second.

#### *Response to Arguments*

14. Applicant's arguments filed July 17, 2002 have been fully considered but they are not persuasive.

Applicant's claimed invention of sealing but not burning a thermoplastic material seems to be based on the temperature of the sealing elements. Based on the references cited disclosing

the claimed temperature range for performing the claimed sealing method as well as the means for carrying out the method, it is deemed inherent that the references sited will seal the thermoplastic material without burning the thermoplastic material in the same manner as the applicant's invention because the same physical elements are met.

Applicant further argues that the rejections as presented in Paper No. 5, do not disclose synchronously moving the cutting edge implement, the film, and the opposing in substantially the same lateral direction. This argument was overcome by Coleman et al. ('732) in view of Motomura.

15. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37. CFR § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE MONTHS SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

*Conclusion*

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16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to attachment for notice of references cited and recommended for consideration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gloria R Weeks whose telephone number is (703) 605-4211. The examiner can normally be reached on 6:30 am - 5:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I Rada can be reached on (703) 305-2187. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7769 for regular communications and (703) 308-7769 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-1789.

Gloria R Weeks  
Examiner  
Art Unit 3721

GRW  
September 18, 2002



Rinaldi I. Rada  
Supervisory Patent Examiner  
Group 3700